

**WISHA Interim Interpretive Memorandum**  
**Washington Department of Labor and Industries**  
**#98-1-M**  
**GUARDING OF METAL LATHES**

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**Background**

WISHA staff have recently raised two distinct issues regarding the appropriate guarding of metal lathes under the applicable WISHA standard (WAC 296-24-15001(1)). The first involves general guarding of the chuck, jaws and the workpiece. The second issue is the hazard created by metal chips and coolant.

This interim memorandum, which will remain in effect until a more formal directive can be completed, provides guidance to WISHA consultation and compliance staff regarding identification of and protection against such hazards.

**Policy**

WISHA staff must cite violations of WAC 296-24-15001(1) only when in-running nip point, in-running pinch points, rotating parts, or flying chips or coolant hazards are identified and appropriate guarding is not in place.

The following general guidelines apply when making such assessments (ANSI B.11.6-1984 Machine Tools and Lathes can be consulted for additional guidance).

*What are the hazards commonly associated with metal lathes?*

- \* Chuck and jaws: The chuck is the rotating lathe part that holds the adjustable jaws, which in turn hold the workpiece; pinch points can be created as the protruding jaws rotate past the lathe frame, while snag hazards can occur if the jaws are extended and the jaw tips catch loose clothing.
- \* Workpiece: A hazard may be created by the shape of the workpiece if it can catch, snag or wrap loose clothing.
- \* Chip and Coolant: Chips are created as work is performed on the stock or workpiece. Chips are the waste product that is removed from the stock in the shaping process. Chips can be ejected from the point of operation at the operator. Coolant is sometimes used to cool the stock, as the shaping process creates heat, and the coolant is used to prevent overheating. Coolant can be sprayed or ejected at the operator.

*What are acceptable guarding methods for such hazards?*

Guarding methods must prevent the operator from entering the hazard area and must not themselves create greater hazards. Examples of appropriate guarding of the chuck, jaws and workpiece include the following:

- \* Fixed guards attached to the lathe frame and using fasteners not easily removed by the operator.
- \* Movable (interlocked) guards that move into position as the lathe is started. These movable guards must incorporate an interlock device that will keep the lathe from starting if the guard is open and stop the lathe if the guard is opened while the lathe is running.
- \* Devices such as constant-pressure two-hand controls, presence sensing devices, or locating the operator so contact with hazardous areas of the lathe is not possible.

A chip/coolant shield must be used when chips or coolant are being ejected from the lathe at the operator or at adjacent work areas (due to the health hazards represented by cutting fluids, the shield *is* a necessary worker protection element).